### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 27 January 2005 (27.01.2005)

**PCT** 

## (10) International Publication Number WO 2005/007560 A2

(51) International Patent Classification<sup>7</sup>:

B67D 1/04

(21) International Application Number:

PCT/NL2004/000513

(22) International Filing Date:

15 July 2004 (15.07.2004)

(25) Filing Language:

Dutch

(26) Publication Language:

English

(30) Priority Data:

1023968

21 July 2003 (21.07.2003) NL

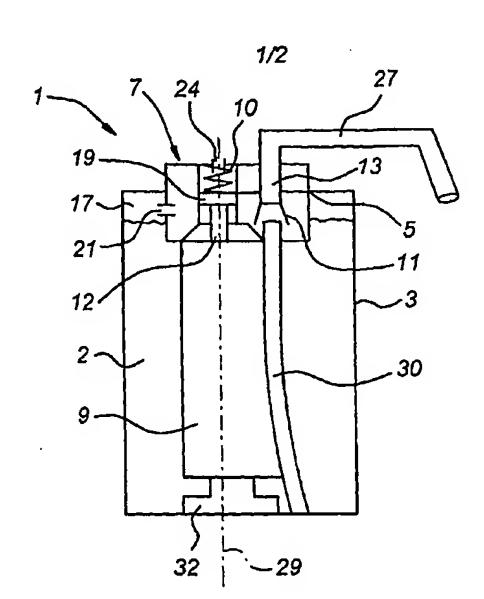
- (71) Applicant (for all designated States except US): HEINEKEN TECHNICAL SERVICES B.V. [NL/NL]; Burgemeester Smeetsweg 1, NL-2382 PH Zoeterwoude (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PAKKERT, Engbert, Hermannes [NL/NL]; Michiel de Ruiterweg 39,

NL-2628 BA Delft (NL). INNIKEL, Quintijn [NL/NL]; Beresteinseweg 76, NL-1217 TK Hilversum (NL).

- (74) Agent: VAN WESTENBRUGGE, Andries; Nederland-sch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hauge (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: PRESSURE REGULATOR FOR CONTAINER FOR CARBONATED DRINK



(57) Abstract: The invention relates to a container for carbonated drink provided with a chamber containing the drink, a drink dispensing opening for drink from the chamber, a pressure medium chamber that is in fluid communication with the chamber for supplying pressure medium to the chamber, which pressure medium chamber has an outlet that is closed off by a delivery valve for delivering pressure medium and a pressure regulating element connected to the delivery valve for operating the delivery valve, wherein the pressure regulating element has a housing with an end wall, a peripheral wall and a piston that can be moved in the housing along the peripheral wall in a sealed manner, wherein an upper housing part is formed between a side of the piston that faces the end wall and the end wall and a lower housing part that at least partially surrounds the delivery valve is formed at the side of the piston facing away from the end wall, wherein the piston engages on the delivery valve and wherein the upper housing part of the housing is in fluid communication with a reference pressure source.

### WO 2005/007560 A2

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

# (19) World Intellectual Property Organization

International Bureau



### 

(43) International Publication Date 27 January 2005 (27.01.2005)

**PCT** 

## (10) International Publication Number WO 2005/007560 A3

(51) International Patent Classification<sup>7</sup>: 1/12, 1/08

B67D 1/04.

(21) International Application Number:

PCT/NL2004/000513

(22) International Filing Date: 15 July 2004 (15.07.2004)

(25) Filing Language:

Dutch

(26) Publication Language:

English

(30) Priority Data:

1023968

21 July 2003 (21.07.2003) NL

(71) Applicant (for all designated States except US): HEINEKEN TECHNICAL SERVICES B.V. [NL/NL]; Burgemeester Smeetsweg 1, NL-2382 PH Zoeterwoude (NL).

(72) Inventors; and

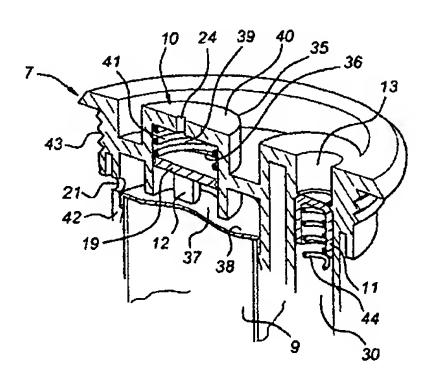
(75) Inventors/Applicants (for US only): PAKKERT, Englert, Hermannes [NL/NL]; Michiel de Ruiterweg 39,

NL-2628 BA Delft (NL). INNIKEL, Quintijn [NL/NL]; Beresteinseweg 76, NL-1217 TK Hilversum (NL).

- (74) Agent: VAN WESTENBRUGGE, Andries; Nederland-sch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hauge (NL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

[Continued on next page]

(54) Title: PRESSURE REGULATOR FOR A CONTAINER FOR A CARBONATED DRINK



(57) Abstract: The invention relates to a container (1) for carbonated drink provided with a chamber (2) containing the drink, a drink dispensing opening (13) for drink from the chamber, a pressure medium chamber which pressure medium chamber (9) has an outlet (21) that is closed by a valve for delivering pressure medium and a pressure regulating element (10) connected to the valve for operating the valve, wherein the pressure regulating element has a housing (35) with an end wall (40), a peripheral wall (36) and a piston (19) that can be moved in the housing along the peripheral wall in a sealed manner, wherein an upper housing part (39) is formed between a side of the piston that faces the end wall and a lower housing part (37) that least partially surround the valve, is formed at the side of the piston facing away from the end wall, wherein the piston engages on the delivery valve and wherein the upper housing part of the housing is in fluid communication with a reference pressure source.

#### 

SK, TR), OAPI (BF, BJ, CF, CG, CL, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report: 2 June 2005

### Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.